

COURT OF ST. JAMES

Sketch of the American Embassy in London.

THE NIGGARDY SALARIES PAID

Furnished Houses All the Diplomats Can Afford.

ABOUT COURT COSTUMES

From the Strand Magazine for August.

The first duty of an American ambassador upon his arrival in London is to obtain an interview with the secretary of state for foreign affairs, and to deliver to him a copy of his letter of credence. The secretary of the embassy usually notifies the foreign secretary of the ambassador's arrival, and in this way, prepares for the interview. Afterward, on a day fixed, the secretary of state presents the ambassador to the sovereign, to whom the ambassador delivers the original letter of credence. On the same day, or as soon as convenient, the ambassador begins a series of social calls upon the secretary of state and members of the royal circle. The ambassador, meanwhile, pays visits to the wives, and in this way the social intercourse which continues throughout the ambassador's term of office is immediately established.

Important as the duties of the ambassador are in the transmission of messages from the Department of State to the British government may be at a certain time, a social part of his labor and, and made his subordinates consists in attention to social court functions, and the most successful ministers of the past hundred years

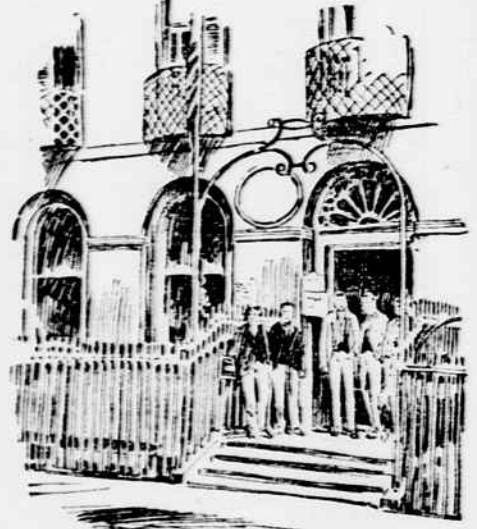


Private Residence of Mr. Bayard.

have been those who have most punctiliously attended to their performance. A glance at the diary of John Quincy Adams will show that the London evenings of that noted man were spent in society. He danced, talked, played cards, and made himself generally agreeable to those about him. His diplomatic success was accordingly enormous. The diplomats of today and Lowell were gained in the same way, and Mr. Bayard's present prestige in England is due greatly to his popularity in the social life of the city. He is, in the present day, as in the past, a man of great personal and social relations with the members of the government and of the diplomatic body at the place of residence.

Personal Tact Valuable. In such a work the value of personal tact, courtesy and education cannot be overestimated. The demands made upon them are continual, whether at the dinner table or the platform, at a country house or at court. In the possession of these qualities the ministers whom the United States has sent to England, from the Adamses to the Phelps and Lincolns, have been peculiarly fortunate, and to the present ambassador—a title which has been lent to Mr. Bayard since his country rose to the first rank among nations—has been lent the privilege of a position which is well-nigh priceless. For years the "American minister" occupied a unique place in London. His speeches were quoted, and his presence sought when the diplomats were apparently neglected. The traditions have been maintained by Mr. Bayard.

It is, however, costly money, and London is a most expensive place to live in. Consequently, the niggardly salaries which the United States gives its diplomatic agents in London quickly disappear, leaving them to depend upon their own private purses for the wherewithal to maintain the costly life of the city. Many protests have been made by past ministers from John Adams down, but these forebode



Consulate General.

presentations of a disgraceful fact have had little influence with the home government. Adams at one time wrote to Jay asking him to "consider that the single circumstance of presenting a family to court will make a difference of several hundred pounds sterling in the inevitable annual expenses," but nothing was done to relieve the minister from the "inevitable." The money goes in a variety of ways. If the queen holds a drawing room or the Prince of Wales a levee, the diplomatic corps is expected to be present, and court dress costs anywhere from two hundred dollars. Besides this, the family of the ambassador is expected to be present, and everyone in London society knows that the bill for a court dress is as long as the ambassador's train. Ambassadors with a good number of daughters are accordingly at a distinct financial disadvantage. The ambassadors, moreover, are supposed not to appear in a dress at a drawing room in the same dress, and this rule imposes an additional financial burden. Then there are dinners to be given, receptions to be held on Washington's birthday and the Fourth of July, the regular weekly reception which Mr. Bayard now gives to his compatriots to be maintained, and a turn-out to be maintained in order that too much of the government's time may not be wasted in the city of dreadful distances.

Heavy Expenses. One can quickly estimate the amount of money which a necessary attention to such ceremony costs to a minister on a small salary. The present wage is \$17,500. How sorry this pittance looks beside the \$25,000 and the sumptuous mansion which the British government gives to Sir Julian Pauncefote, its representative in Washington.

There is little doubt, however, that an ambassador would willingly bear all the expenses which fall upon him, as is the case with others of his rank, if the house in which he lived belonged to his nation. The United States in this respect stands in a unique and unfortunate position. All other nations give to their ambassadors a man-

sion which, through continuous use by successive ambassadors, becomes the real estate. The American ambassador, on the other hand, is forced to hire a furnished house. He does not dare to buy a mansion, or to furnish one, because he knows that his term of office may not last longer than four years; and he cannot feel sure that his successor will relieve him from the burden of a furnished house. If Congress were at least bit sensitive to appearances, it would quickly put an end to the "furnished house" system, and give to the ambassador a mansion of which the nation might be proud.

The Court Costume. "What shall I wear at court?" is a question which has puzzled every envoy whom the United States has sent to Europe, and has sent to England, and very amusing are the stories told of the ministerial struggles with this most important matter of dress. The trouble has been due to the strictness of the rules which govern the court functions, as well as to the regulations put upon the ministers by Congress. Of the one, it is well known that the official costume of the United States is to be rigidly conformed with, else a guest cannot pass her majesty. When Mr. Dallas was in London he took two great military dignitaries of the United States to court, but one of them was not allowed to pass the queen because he wore a black cravat, had a sword at his side, and a sword. The minister thereupon withdrew gracefully with his friend.

Regarding the provisions of Congress upon this point, the prime minister of the United States instructs officers to conform "to the requirements of law prohibiting them from wearing any uniform or official costume not previously authorized by Congress." The taste of Congress has been expressed in favor of the simple dress of an American citizen, and in the several instances in which hints at the dress which Franklin wore at the court of France ought to be taken as a model. Evidently Congress forgot that the reason for Franklin's costume in Quaker dress, with home-knit wooden stockings, was due, not to an austere feeling in our minister, but to a general aversion to the costume of the American who had so quickly sprung into popularity.

One of those who did not know what to wear. He was perfectly willing to accord with the wishes of his host, but he early discovered that the "simple dress" of the United States was very nearly that of the upper court servant. At one time, therefore, he thought of the United States buttons, and at another time of donning the dress of George Washington. He sacrificed the more manly and less conspicuous costume, and he abandoned the Washington costume at a levee, as he says, in his own words, "as I have worn at the President's for hundreds of times." The costume consisted of a black coat, white waistcoat, black pantaloons and dress boots, and a sword, a very plain, black-handled and black-hilted sword. It was a victory for Mr. Buchanan's costume, but the costume must have given the lord chamberlain a headache. The present court costume is as might be expected, and is merely the expensive dress of black broadcloth, silk stockings and low shoes.

The Embassy. The embassy is the place through which the government of the United States converses and consults with the government of Great Britain—the embassy acting as go-between. Many of these negotiations require the greatest secrecy, and it is therefore not surprising to find the embassy a very subdued sort of place, with several rooms which the ordinary visitor never sees. The embassy is at 123 Victoria street, a black coat, white waistcoat, black pantaloons and dress boots, and a sword, a very plain, black-handled and black-hilted sword. It was a victory for Mr. Buchanan's costume, but the costume must have given the lord chamberlain a headache. The present court costume is as might be expected, and is merely the expensive dress of black broadcloth, silk stockings and low shoes.

In one of the invisible rooms sits Mr. Bayard. Although he is not by nature an exclusive man, he is, through force of circumstance, a man who hides himself from the large body of visitors who seek the embassy, and the lucky ones who see him must come through the government representative with luxury and extravagance.

The Consulate. The consulate is closely connected with the embassy, and is situated at 12 St. Helen's place. It is a small building, the heart of the city of London, easy of access to the thousand and one shippers and merchants who seek its help every week of the year. We saw it, and the smallness of the place and its meanness of appearance, but will try to show the American citizen abroad. The consulate is a small building, the heart of the city of London, easy of access to the thousand and one shippers and merchants who seek its help every week of the year. We saw it, and the smallness of the place and its meanness of appearance, but will try to show the American citizen abroad.

Notwithstanding his importance, the consul is not a diplomatic agent of the United States. He is sent to his post for mercantile purposes, and as a protector of the fellow-citizens in the district he represents. For these reasons, he possesses no diplomatic immunity. Unlike the ambassador, he is not a diplomat, and he is not a diplomat. He is sent to his post for mercantile purposes, and as a protector of the fellow-citizens in the district he represents. For these reasons, he possesses no diplomatic immunity. Unlike the ambassador, he is not a diplomat, and he is not a diplomat.

The Candidate at Home. From the Springfield Republican. It is always very touching when one of the newly nominated candidates for the presidency strikes the home of the candidate. The candidate is always very touching when one of the newly nominated candidates for the presidency strikes the home of the candidate. The candidate is always very touching when one of the newly nominated candidates for the presidency strikes the home of the candidate.

A Wonder. From the Cleveland Star. Miss Croghan—"Did you see the way Kittie Casey's puttin' on 'er frills wid her bikkies?" Johnnie McGilgo—"Naw, wid kin she do?" Miss Croghan—"She was a real beauty, wan hand 'n' hold on to her bloomers wid the other, just like she was crossin' a muddy gutter."

THE NATIONAL GUARD

Brigade Team Practice Will Begin at Ordway Monday Next.

FENCIBLES' RETURN IS WELCOMED

No Company Camp to Be Held This Summer.

MAJOR ALEXANDER'S VIEWS

From the Evening Star.

Brigade team practice will commence at Ordway Monday next at 2 p.m. On the day set apart for the practice of the brigade team no other shooting will be permitted. Voluntary practice will be confined exclusively to the members of the brigade for known distance firing and to Saturday for skirmishing. The regimental teams will practice on the days announced for voluntary practice.

No difficulty was experienced in cutting down the large number of candidates for places on the brigade team to twenty-two, but when that figure was reached a halt was called. The number mentioned will be notified to appear at the range Monday afternoon, when the careers of several of them as aspirants for team honors this year will reach a termination.

The absence from the city of Sgt. James M. Stewart, who has been a member of the brigade team since 1890 and one of the best shots of the dozen—will provide one vacancy in the shooting twelve, and a vacancy in the running eight. The vacancy may be captured by New Jersey, in which event there will be two vacancies. The vacancy in the running eight will be filled by a vacancy in the running eight.

The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight.

The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight.

The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight.

The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight.

The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight.

The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight.

The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight.

The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight.

The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight. The vacancy in the running eight will be filled by a vacancy in the running eight.

organizations have forwarded to headquarters requests for permission to engage in such trips, and both were returned with an intimation to the effect that camp equipment and other necessary stores would not be issued. Under the circumstances it will be impossible for any company to take an outing of the desired description.

Everything points to a successful season, beginning September next, in the gymnasium at the army, conducted under the auspices of the National Guard Athletic Association. There is promise of the purchase of new apparatus to the value of several hundreds of dollars, and a general desire for activity and vigor. The services of Mr. May Temple, a well-known local athlete, have been engaged as athletic instructor, and absolute control of the gymnasium is to be vested in him.

Work in the gymnasium is to be carried on systematically and in accordance with a carefully prepared schedule. Instruction in basketball playing will be the order for an hour or more Monday evenings, and at its conclusion the gymnasium will be open to the members for general work. Classes will receive instruction Wednesday and Friday, from 7:30 to 9:30 p.m. A strong effort is to be made to make the gymnasium a place of interest to the members of the District National Guard.

Midsummer Election of Officers. At the semi-annual meeting of the members of Company A, 2d Battalion, Monday evening last, W. L. Hazard was elected recording secretary; G. W. McGee, financial secretary, and Logan Prosser, Jr., treasurer. Capt. Edwards announced the appointment of the following members for general work: Executive—Capt. Eugene C. Edwards, chairman; First Lieut. C. A. Myers, Second Lieut. Logan Prosser, Jr., W. E. Thompson, J. H. Hazard, G. W. McGee and Joseph Godfrey.

Recruiting—William Smith, chairman; Oscar Walters, William Cohen, Theodore G. Deane and Harry M. Hill. Finance—Joseph Gustis, chairman; Ezra Gould and M. P. Brittain. Capt. Edwards announced the appointment of the following members for general work: Executive—Capt. Eugene C. Edwards, chairman; First Lieut. C. A. Myers, Second Lieut. Logan Prosser, Jr., W. E. Thompson, J. H. Hazard, G. W. McGee and Joseph Godfrey.

Prepared for Duty. Maj. Winthrop Alexander, inspector general of the District National Guard, in the course of an article on "Ten Years of Riot Duty," makes the following statements, which are of interest to the members of the local brigade:

"A full equipment for troops in the field should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles.

The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles.

The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles.

The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles.

The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles.

The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles.

The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles.

The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles.

The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles.

The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles.

The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles.

The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles. The equipment should be kept in armories, including a reserve of small arms and four alternate rifles.

in practice on the team that will represent the troop in the carbine match at Sea Girt. P. Carroll Mattingly has been appointed acting first lieutenant of Company D, 5th Battalion, and will be in command of the team.

Capt. Harrison S. Barbour, 1st Separate Company, has been granted three months' leave of absence. The company of infantry known as the National Fencibles, mustered in July 21, has been assigned as Company C, 2d Battalion, of the 1st Separate Company.

The Corps of Field Music of the District National Guard will accompany a local democratic organization to New York July 10. Private Arthur A. Birney and Sergt. Schuyler S. Stokes appeared before the department of rifle practice board of examination Tuesday evening last, and it is understood that both established excellent records.

It is understood that Mr. George E. Pickett, formerly first lieutenant of Company C, 4th Battalion, will be elected first lieutenant of Company A, 5th Battalion, to fill the vacancy caused by the resignation of Lieut. Chas. E. Swigart.

Certain members of the 5th Battalion are considering the advisability of undertaking a Saturday night road march to Ordway in the near future. Among the visitors at the encampment of the Maryland National Guard at Fort Detrick during the past week, were Gen. Nelson A. Miles, U.S.A., and Miss Blaine, formerly of the 1st Separate Company.

The cyclists of Company A, 3d Battalion, have arranged a ride to Cabin John bridge for this evening. Col. F. Peters, late of the 2d Regiment, Tennessee National Guard, is in the city on a business visit. Col. Peters is well respected as the popular, efficient and obliging general manager of the Memphis interstate drill last year. He visited the members of Company A, 3d Battalion, and Company C, 2d Battalion, renewed old friendships, and was extended a cordial welcome.

An Enormous Crew. From the Chicago Inter-Ocean. In Nelson's day the stately Foudroyant carried 700 or 800 men, but with the aid of a couple of dinker engines, kept out of sight as much as possible, Mr. Cobb hopes to be able to navigate her with about fifty. When she is quite finished she will sail to the principal seaports of Great Britain, and after that cross the Atlantic to be shown to our American cousins. As many of the crew as possible are old men-of-war's men who have served in wooden ships, and when all is ready they will wear the uniform of Nelson's day, from the white trousers, on which they themselves sewed stripes of red and blue, to the black and shiny tarpaulin, which they call "sky-scraper." All who wish to see what ships looked like in the days when Nelson swept the seas should take this opportunity of visiting the Foudroyant. It was in the Foudroyant that Nelson had the satisfaction of capturing the French ship of the line which had captured Capt. Perry in his ship, the USS "Essex," and which was the news of the victory of the Nile. The French very magnanimously released Capt. Perry on parole, and the Foudroyant is commended to Englishmen not only as Nelson's flagship, for in her captain's cabin expired the gallant Sir Ralph Abercrombie after winning the land battle of Aboukir.

Last Girard Annuitant Dead. Mrs. Emilie Girard Taylor, who for twenty years has been a resident of Atlantic City, died last week. She was eighty-seven years old, and was the only living annuitant of the Stephen Girard estate, being a niece of Girard's housekeeper, and for years lived in the family, sitting at table at the left hand of the eccentric millionaire merchant, who had no children of his own. As a child she was a special pet of Stephen Girard, of whom she has related many interesting incidents. In Girard's household she met many times John Jay, Governor of New York, and other notable men. She became acquainted with Richard McWilliams Taylor, a wholesale broker of Philadelphia, and his family, nine children, seven sons and two daughters. She lived several years in Europe, and met the Emperor William I of Germany and other members of the nobility.

Pharaoh Objected. From Judge. "If I may be so bold as to suggest it," said Joseph to Pharaoh, after the wheat of the seven plentiful years had been gathered into the store cities. "I think it would be an excellent idea for your majesty to establish institutions of savings throughout Egypt, in which your subjects may deposit their surplus earnings."

"Well, now, Joe," replied the Egyptian monarch, "wouldn't it look nice for me to start a lot of Pharaoh banks?"

A Case of Too Much Tire. From the Cincinnati Enquirer. "Mr. Starr," said the manager, "you positively must quit letting your mind dwell so much on your wheel."

"Eh! Why?" asked the tragedian. "Perhaps you are not aware of it, but in the third act, when you were supposed to cry, 'Ye gods, I am stabbed, you shouters! I am punctured!'"

A Safe Retreat. From Under Land and Meer. A Yankee in Ceylon, desiring to take a bath, asked a native to show him to a place that was free from crocodiles. The native took him close to the mouth of the river, where our Yankee enjoyed a nice refreshing bath. On coming out of the water he inquired of his guide how this locality happened to be free from crocodiles.

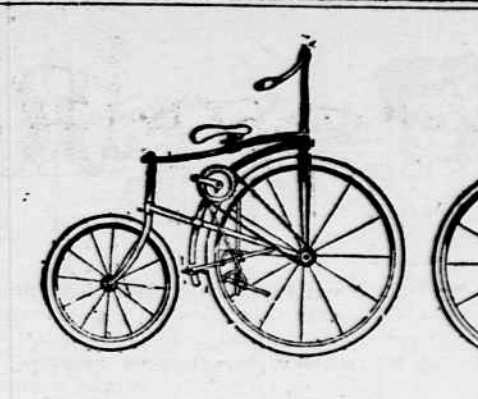
"Crocodile 'fraid of sharks," replied the Cinghalese; "too many sharks here!"

The Tramp's Retreat; Or, the Landlady's Surprise. From the Filigree Blatter. Men who look weak or are very small of stature should be rejected. We are enlisting too many small men, too many beardless boys. It is a waste of time and money to take such material. It has a demoralizing effect on the older men. They and these boys are in the company, and they drop out and refuse to re-enlist. The medical department should reject a man who is under five feet high and weight less than 125 pounds.

Novel Attraction at Sea Girt. In a report of the recent review of the New Jersey troops at Sea Girt the Philadelphia Press speaks as follows: "Governor J. W. Griggs, the commander-in-chief of the New Jersey forces, headed the group. The commander-in-chief was seated on a dock-like horse that had been specially bred for the purpose. The horse was a small, dark-colored animal, and the governor was seated on it in a very awkward position. The crowd were on tiptoe of expectation, and the governor was very much attracted by the novelty of a horse wearing a high silk hat, a dark suit, looking every inch a soldier and accompanied by a staff.

Company Teams at Sea Girt. Within the next few days a circular will be addressed to the company commanders of the brigade, announcing that transportation to Sea Girt will be furnished two company teams, the lucky ones to be selected by team competition about a week prior to the departure for Jersey. This plan will include the 1st Separate Company, A, Engineer Corps, as every member of the latter's company team will be numbered. The Sea Girt must comply strictly with the regulations governing the brigade team.

Among the Guardsmen. At a meeting of troop A Monday evening last the proposition to indulge in a practice road march next month will be considered. Ten or twelve men are engaged



BI-CYCLE DEVICES

Ingenious Ideas Designed as Improvements to the Wheel.

NEW METHODS OF APPLYING POWER

Plan of Working the Pedals by Vertical Motion.

TANDEM ATTACHMENT

A NEW IDEA IN bicycles, which will doubtless be hailed with joy by all users of the wheel, is an attachment which, while allowing cyclists to get the same amount of power from their riding, gives greater speed with the outlay of less than the usual amount of muscular force, and consequently with less fatigue. In the ordinary bicycle the pedal moves through a circle, requiring thereby what is known as the "ankle motion" and the "back motion," which are not only awkward, but are also difficult in learning to ride rapidly, as they can only be properly obtained by the most constant practice and exertion.

The new invention overcomes these motions of the foot, thus taking the strain from the rider, for the pedals are worked by a vertical motion of the foot, which is a purely natural and customary direction for the foot to move.

By an ingenious arrangement of gearing, the downward movement of the new pedal describes an arc of a circle, the center of which is a rear connection of the pedal frame. As the pedal is moved down, it forces the connecting bar down with it on the crank shaft. By this leverage a terrific force is applied to the crank shaft, which is thus turned by mechanical means instead of directly by the foot. In the new device, the cranks are arranged so as to be directly opposite to each other, but so that both cannot be placed on a dead center at the same time.

It is claimed that this attachment can be applied to any bicycle. The rider exerting motion uniformly effective pressure, it helps him to ascend steeper grades with the same gear or the same grade with a higher gear than can be done by means of the ordinary crank. By the new invention, the pressure of the foot becomes effective during more than half the revolution of the crank shaft. The foot descends rather slowly, performs its work then returns quickly to the top of the range to begin anew. More than half the time is spent in the downward working part of the movement, and as a result a less powerful and less muscular strain suffice to produce a given mean tangential force upon the crank.

Tandem or Single. A bicycle which can be converted at pleasure from a single machine into a tandem, or "bicycle built for two," is the most recent invention in the wheel line. It consists of a novel combination of parts, which form an attachment adapted for application to any bicycle of ordinary pattern. One great objection to the ordinary tandem is that it is almost imperative that two persons ride it. With only one rider the machine becomes unwieldy, and is almost impossible to handle.

It is claimed that this attachment can be applied to any bicycle. The rider exerting motion uniformly effective pressure, it helps him to ascend steeper grades with the same gear or the same grade with a higher gear than can be done by means of the ordinary crank. By the new invention, the pressure of the foot becomes effective during more than half the revolution of the crank shaft. The foot descends rather slowly, performs its work then returns quickly to the top of the range to begin anew. More than half the time is spent in the downward working part of the movement, and as a result a less powerful and less muscular strain suffice to produce a given mean tangential force upon the crank.

Pneumatic-tired wheel on a roller-skate frame, popular in England. The popularity of any form of roller skates. Not so, however, in England, where the inventor of the skate claims that "a skate which is independent alike of the thickness of the wheel and of the hardness of the road is a long-felt want. The new appliance, which is really an adaptation of the principle of the cycle to the roller-skate, is furnished with pneumatic tires and ball bearings, and it will not be long in all probability for the skate to be ridden quickly to the top of the range to begin anew. More than half the time is spent in the downward working part of the movement, and as a result a less powerful and less muscular strain suffice to produce a given mean tangential force upon the crank.

The English road skate is a cumbersome thing. The wheels are about four inches in diameter. The skate may be folded up for traveling.

Lumber Used in Box Making. From the Northwestern Lumberman. In a discussion of the amount of lumber consumed in the making of boxes, Barred and Box, a paper recently sent out from Louisville, is authority for the statement that certain Chicago soap concerns use every year \$100,000 worth of white pine soap boxes. These boxes are made of cottonwood, which is a very soft wood, and is used in packing soap boxes. The boxes are made of cottonwood, which is a very soft wood, and is used in packing soap boxes.

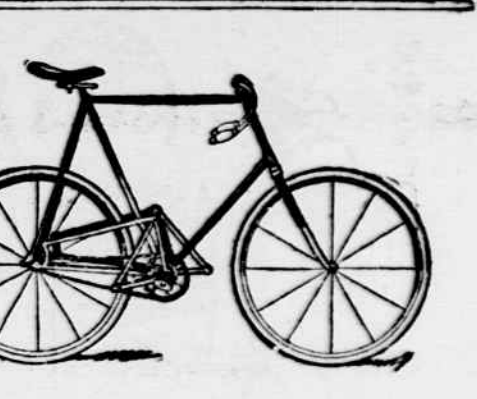
Fitted to a Ladies' Wheel. A clamp at the front of the auxiliary horizontal bar is fastened to the saddle post of an ordinary machine, while the two ends of the crank rest on the driving shaft, which passes through the hub of the front wheel. The second saddle projects somewhat beyond the rear wheel, but not sufficiently far to overbalance the machine when there are two riders on it. The rear handle bar is set just behind the regular saddle, in the auxiliary horizontal bar, and can be attached to the front steering gear by a chain or small rod. This device can be fitted to a lady's wheel and as to a gentleman's wheel, and when one wants to ride a lady's wheel, he need not go to the expense of providing a wheel for himself, provided the lady has one. All that is necessary is that he own the auxiliary parts of an adjustable tandem, which he can carry in his hand, and in a few seconds attach to his lady's machine, thus converting it into a complete tandem.

One of the latest bicycle inventions relates to the steering gear. Most bicycles are steered to the front wheel, but on this new wheel acts as a rudder. Another unique feature is the way in which the pedal power is applied. Instead of operating a crank, the rider pushes the pedal up and down, and the rotary motion is accomplished by means of a connecting bar and a crank. The front wheel is used as the driving wheel instead of the rear one. It is much larger than the front wheel of an ordinary safety. The reason for this is to increase the speed by reducing the friction and the wheel being of larger circumference covers the ground with fewer revolutions.

No Chain and Sprocket. Another freak bicycle which soon may be seen if manufacturers think enough of the idea to invest their money does away with the familiar chain and sprocket. A claim is made that the absence of these parts means a distinct saving of power. The rider is seated directly over the rear wheel and operates a crank shaft on which is affixed a large geared wheel. This turns a small gear on the axle of the driving wheel, which revolves several times to one revolution of the crank shaft.

The Century Crank. From the Filigree Blatter. In a discussion of the amount of lumber consumed in the making of boxes, Barred and Box, a paper recently sent out from Louisville, is authority for the statement that certain Chicago soap concerns use every year \$100,000 worth of white pine soap boxes. These boxes are made of cottonwood, which is a very soft wood, and is used in packing soap boxes. The boxes are made of cottonwood, which is a very soft wood, and is used in packing soap boxes.

It is too bad that the earth is so small.



BI-CYCLE DEVICES

Ingenious Ideas Designed as Improvements to the Wheel.

NEW METHODS OF APPLYING POWER

Plan of Working the Pedals by Vertical Motion.

TANDEM ATTACHMENT

A NEW IDEA IN bicycles, which will doubtless be hailed with joy by all users of the wheel, is an attachment which, while allowing cyclists to get the same amount of power from their riding, gives greater speed with the outlay of less than the usual amount of muscular force, and consequently with less fatigue. In the ordinary bicycle the pedal moves through a circle, requiring thereby what is known as the "ankle motion" and the "back motion," which are not only awkward, but are also difficult in learning to ride rapidly, as they can only be properly obtained by the most constant practice and exertion.

The new invention overcomes these motions of the foot, thus taking the strain from the rider, for the pedals are worked by a vertical motion of the foot, which is a purely natural and customary direction for the foot to move.

By an ingenious arrangement of gearing, the downward movement of the new pedal describes an arc of a circle, the center of which is a rear connection of the pedal frame. As the pedal is moved down, it forces the connecting bar down with it on the crank shaft. By this leverage a terrific force is applied to the crank shaft, which is thus turned by mechanical means instead of directly by the foot. In the new device, the cranks are arranged so as to be directly opposite to each other, but so that both cannot be placed on a dead center at the same time.

It is claimed that this attachment can be applied to any bicycle. The rider exerting motion uniformly effective pressure, it helps him to ascend steeper grades with the same gear or the same grade with a higher gear than can be done by means of the ordinary crank. By the new invention, the pressure of the foot becomes effective during more than half the revolution of the crank shaft. The foot descends rather slowly, performs its work then returns quickly to the top of the range to begin anew. More than half the time is spent in the downward working part of the movement, and as a result a less powerful and less muscular strain suffice to produce a given mean tangential force upon the crank.

Tandem or Single. A bicycle which can be converted at pleasure from a single machine into a tandem, or "bicycle built for two," is the most recent invention in the wheel line. It consists of a novel combination of parts, which form an attachment adapted for application to any bicycle of ordinary pattern. One great objection to the ordinary tandem is that it is almost imperative that two persons ride it. With only one rider the machine becomes unwieldy, and is almost impossible to handle.